



**National
Aeronautical
Laboratory**

Documentation Sheet

Document Classification

RESTRICTED

Title :
VELOCITY DISTRIBUTION OVER
GTX-35-VS HPT STAGE PROFILES

Document No.
PD-PR-9011
Date of issue: SEPT. 90

Author(s) :
K.MURUGESAN, S.RAMAMURTHY
V.S.S.MURTHY AND R.RAJENDRAN

Contents
67 PAGES

Division : PROPULSION DIVISION

No. of copies: 10

External participation : - - -

NAL Project No.
PR-O-164

Sponsor : GTRE, BANGALORE

Sponsor's Project No.

Approval : *BBK* 2/9/90 /HEAD, PROPULSION DIVISION

Remarks : - - -

Keywords : STREAMLINE CURVATURE, COMPRESSIBLE FLOW,
SURFACE MACH NUMBER, VELOCITY DISTRIBUTION.

Abstract :

SURFACE MACH NUMBER DISTRIBUTION FOR THE HUB, MEAN AND TIP PROFILES OF HPT NOZZLE GUIDE VANE(STATOR). AND ROTOR WERE THEORETICALLY EVALUATED USING COMPRESSIBLE FLOW ANALYSIS BASED ON STREAMLINE CURVATURE METHOD. THE ANALYSIS FOR EACH PROFILE WAS CARRIED OUT FOR A SPECIFIED STREAM TUBE THICKNESS VARIATION AND INLET CONDITIONS.